

ABSTRACT OF THE DISCLOSURE

Quantum switches, referred to as trisistors, operate on the basis of interactions between two elementary particles (EP), such as photons, electrons, phonons, etc. A first EP is used as a control input to the trisistor and interacts with a second EP, thereby inducing a detectable state change in the second EP that determines the trisistor's output value. The physical property which determines the particular EP state could be, for example, polarization, spin direction or energy level. The trisistors are connected primarily in series rather than in parallel as in previous quantum computing devices. The trisistors can be combined to form various types of logic gates, circuits, and other computer components. To implement the changes of state of the trisistors, one preferred embodiment employs nonlinear optics using a thin section of crystal.

DRAWING AMENDMENTS

The drawings filed with the application are informal and have been objected to by the Examiner. Attached are 6 sheets of formal drawings which are believed to overcome the Examiner's objections. Applicants request that the Examiner approve and enter these drawings into the application.